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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,716	01/20/2006	Akito Tanaka	265233US0XPCT	7461
22850 7590 01/04/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER VALENROD, YEVGENY				
ART UNIT 1621		PAPER NUMBER		
NOTIFICATION DATE 01/04/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/522,716

Applicant(s)

TANAKA ET AL.

Examiner

YEVEGENY VALENROD

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9 and 18-41 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,4-9 and 18-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-37 and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/28/05, 8/21/09, 7/14/08, 7/14/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Election/Restrictions***

Applicant's election of Compound of formula (Ie) of claim 30 in the reply filed on 8/10/09 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1, 2, 4-9, 18-23 and 38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/10/09.

Claims 24-37 and 39-41 are hereby examined. Examination of said claims is limited to the structure of formula Ie (claim 30) and IIe (claim 37).

Claims 1, 2, 4-9, 18-23 and 38 are withdrawn.

Claim Rejections - 35 USC § 112 second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim comprises a limitation directed the spacer not having a functional group that becomes positively or negatively charged in an aqueous solution. The above limitation is indefinite. It is not clear which functional groups are included and which are excluded from

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applicants' claim. For example, is the ketone functionality included? In aqueous acidic solution some of the carbonyl oxygen in the ketone will be protonated forming an oxonium and therefore becoming positively charged. Same can be said of any amine functionality. Even in neutral aqueous conditions (pH = 7) some of the nitrogens will be protonated. The degree of protonation or deprotonation can be calculated using pka and pkb values for various functional groups.

Claim 24 recites the limitation "the molecule A" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim. Molecule A has not previously been described in the claim.

Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is directed to a polymer prepared by polymerizing a compound represented by formulas (IIa)-(IIe). The structure of the resulting polymer is unclear. The terminal groups in compound (IIe) are hydrogen or protecting groups. It is unclear which polymers applicant intends to claim when one of or both amino and carboxyl ends of the structure (IIe) are bound to protecting groups.

Claims 35-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject

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matter which applicant regards as the invention. Claims 35-36 are comprise limitations directed to partial structures of formula (Ia) - (Ie). Formulas (Ia) - (Ie) are not described in claims 35-36 or in any claim of which 35 or 36 depend. The structure of the said partial structures is unclear.

Claims 24-34 and 40-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The scope of what is encompassed by "molecule A" is unclear. Examiner will interpret Molecule A as meaning any molecule.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

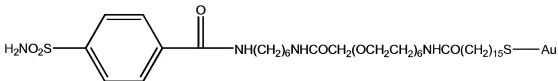
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

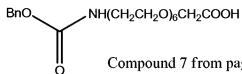
Claims 24-30, 32-35, 37 and 39-41 are rejected under 35 U.S.C. 102 (b) as being anticipated by Chapman et al. (*Langmuir* **2000**, 16, pp 6927-6936).

On page 6934, table 2 Chapman discloses complex 4. Complex 4 comprises the spacer corresponding to instant formulas (Ie) of claim 30 and (IIe) of claim 37, solid phase support and molecule A. On page 6935 Chapman discloses compound of formula 7, which meets the structural limitations of

compound of formula (IIe) in claim 37. The structures of the disclosed complex and compound are as follows:



Complex 4 from Table 2

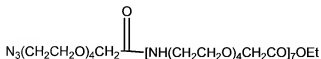


Compound 7 from page 6935

Claims 24-26, 28, 30, 31, 33, 35-37 and 40 rejected under 35

U.S.C. 102(b) as being anticipated by Dhawan et al (*Bioconjugate chemistry* **2000**, *11*, 14-21).

Dhawan discloses compound 7 (Page 19, Scheme 4a):



compound 7, page 19

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The above compound meets the structural limitations set forth in the rejected claims. The ethoxy group corresponds molecule A. The 7 repeating units correspond to more than 2 structures of formulas (Ie) and (Ile).

Conclusion

Claims 1-2, 4-9 and 18-41 are pending.

Claims 1, 2, 4-9, 18-23 and 38 are withdrawn.

Claims 24-37 and 39-41 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yevgeny Valenrod whose telephone number is 571-272-9049. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yevgeny Valenrod/

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